



# Bristol Engine Company #5, Renovation and Expansion Conceptual Design, Options A,B & C

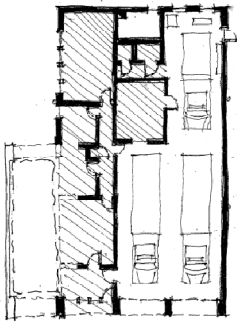
Presented by:

Fire Chief, Jon Pose

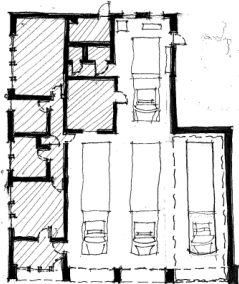
Timothy J. Callahan AIA,



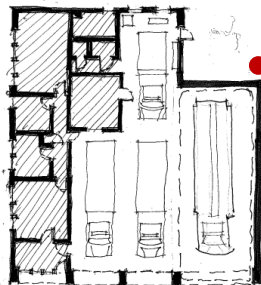
# Construction Options



- **Option A** Renovation: Female Living Accommodations Addition of 400 sf  
Total Project Cost = \$552,141.00



- **Option B** Renovation: Standard Truck Bay Addition of 640 sf  
Total Project Cost = \$747,141.00



- **Option C** Renovation: Ladder Truck Bay Addition of 1080 sf  
Total Project Cost = \$871,641.00



# Scope of Construction **Option A**

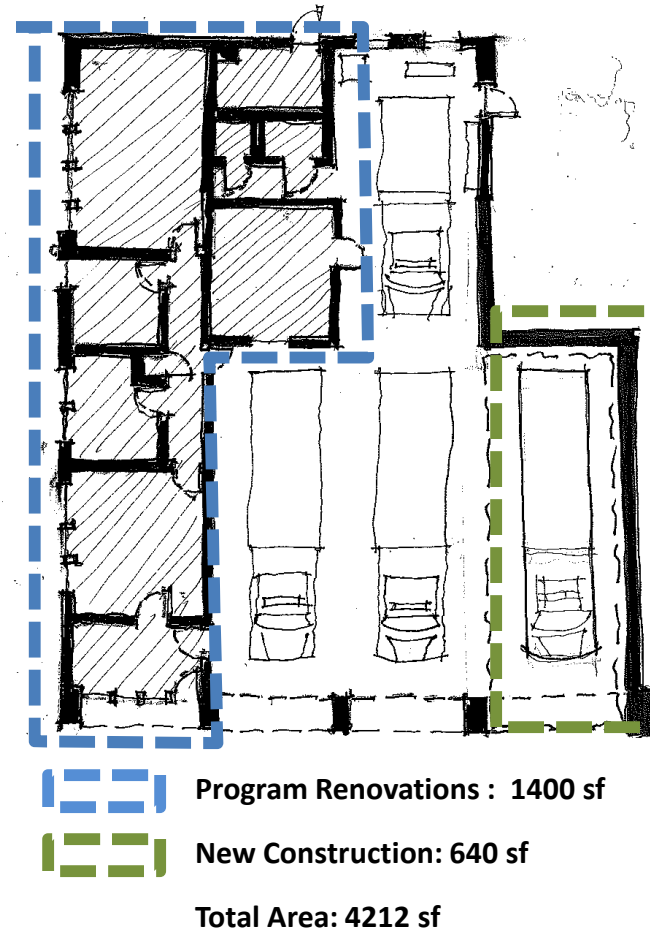
- **Program Renovations :**  
Option A; 900 sf For Male/ Female Living Accommodations
- **New Construction :**  
Option A; 400 sf For Female Living Accommodations
- **90 ml EDPM Roof 30 yr. and Tapered Insulation**
- **Trussed Roof With Asphalt Shingles 30 yr.**
- **Roof and Site Drainage**
- **Clean, Repoint and Repair Exterior**
- **Window/ Door Replacement**
- **Over Head Door Replacement (2)**
- **New Natural Gas line and Generator Upgrades**
- **Furniture Fixtures and Equipment**
- **Site Improvements, Drive/Parking,**
- **Technology/Phone Security Upgrade**
- **Exterior Signage**





# Scope of Construction **Option B**

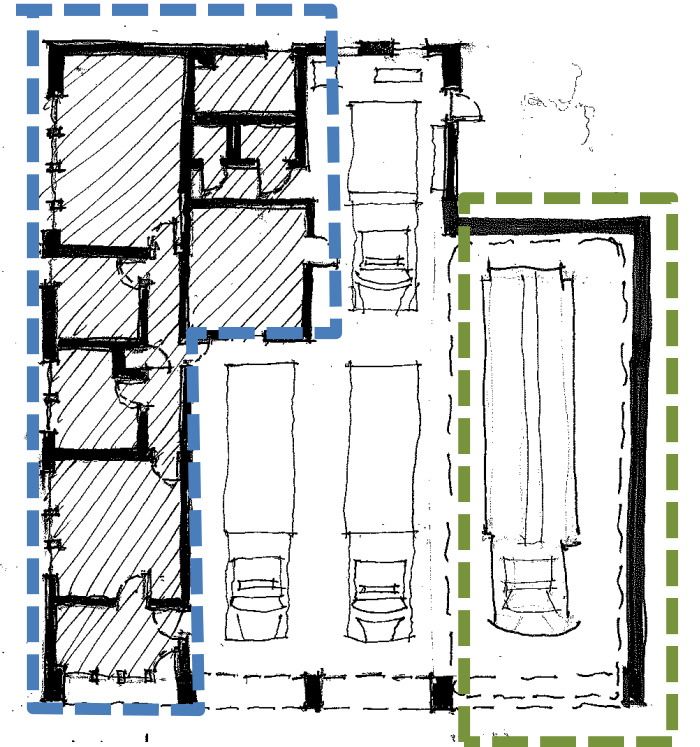
- **Program Renovations :**  
Option B; 1400 sf For Male/ Female Living Accommodations
- **New Construction :**  
Option B; 640 sf For Hose Truck
- 90 ml EDPM Roof 30 yr. and Tapered Insulation
- Trussed Roof With Asphalt Shingles 30 yr.
- Roof and Site Drainage
- Clean, Repoint and Repair Exterior
- Window/ Door Replacement
- Over Head Door Replacement (2)
- New Natural Gas line and Generator Upgrades
- Furniture Fixtures and Equipment
- Site Improvements, Drive/Parking
- Technology/Phone Security Upgrade
- Exterior Signage





# Scope of Construction **Option C**

- **Program Renovations :**  
Option C, 1400 sf
- **New Construction :**  
Option C, 1080 sf
- 90 ml EDPM Roof 30 yr. and Tapered Insulation
- Trussed Roof With Asphalt Shingles 30 yr.
- Roof and Site Drainage
- Clean, Repoint and Repair Exterior
- Window/ Door Replacement
- Over Head Door Replacement (2)
- New Natural Gas line and Generator Upgrades
- Furniture Fixtures and Equipment
- Site Improvements, Drive/Parking,
- Technology/Phone Security Upgrade
- Exterior Signage



Program Renovations : 1400 sf

New Construction: 1080 sf

Total Area: 4652 sf



# Comparison Matrix

Description	Option A	Option B	Option C
Male/ Female Living Accommodations	2	2	3
Equipment Requirements	0	1	3
Vehicle Storage Requirements	0	1	3
Vehicle Clearance Requirements	0	2	3
Future Site Expansion	3	2	2
Long Term Program Goals	0	1	3
Lowest Overall Cost	3	2	1
<b>Total</b>	<b>8</b>	<b>11</b>	<b>18</b>
Matrix Notes:			
0: Does Not Meet Min. Requirements			
1: Meets Minimum Requirements			
2: Meets Most Requirements			
3: Meets or Exceeds Requirements			



# Option A, Estimate

<b>Final Conceptual Cost Estimate,</b>			
<b>Option A - EDPM Roof /Trussed Roof, Renovation and Expansion</b>			
285 Mix Street			Draft/Progress Print
Bristol, CT			
1	2	3	4
<i>Categories of Work</i>	<i>Construction Cost</i>	<i>Contingency &amp; Soft Costs</i>	<i>Total Construction Cost</i>
EDPM Roof and Tapered Insulation (3008 sf)X\$21	\$63,168	\$18,950	\$82,118
Trussed Roof Without Storage (564 sf ) \$48	\$27,072	\$8,122	\$35,194
Roof and Site Drainage (Allowance)	\$10,000	\$3,000	\$13,000
Clean, Repoint and Repair Exterior (2586 sf) \$4	\$11,424	\$3,427	\$14,851
Window/ Door Replacement (202sf) \$30	\$6,060	\$1,818	\$7,878
Over Head Door Replacement (2) Allowance	\$20,000	\$6,000	\$26,000
Mech. Ren.,Gas line Gen. Upgrades (Allowance)	\$12,000	\$3,600	\$15,600
Program Renovation: (900 sf) \$150	\$135,000	\$40,500	\$175,500
New Construction (400 sf) \$250	\$100,000	\$30,000	\$130,000
Furniture Fixtures and Equipment (Allowance)	\$8,000	\$2,400	\$10,400
Site Improvements, (Drive/Parking,)	\$15,000	\$4,500	\$19,500
Technology/Phone Security Upgrade (Allowance)	\$7,000	\$2,100	\$9,100
Exterior Signage (Allowance)	\$10,000	\$3,000	\$13,000
Subtotal	\$424,724	\$127,417	\$552,141
Escalation (0 Years)			0
<b>Total</b>			<b>552,141</b>

## Cost Estimate Notes

**Column 1 - Categories of Work:** the principal categories of work. New Construction refers to new additions. Program Renovations refer to reconfiguration of existing space for new uses.

**Column 2- Construction Cost:** Indicates the base construction cost of the work in each of the preceding categories.

**Column 3 - Contingency and Soft Costs:** contingency adds 10% to the base construction cost, soft costs add 20% to the sum of the base construction cost and contingency.

The indicated amount represents the combined contingency and soft costs. Soft costs include permits legal fees bonding costs architectural /engineering costs, administration, financing, internal project management, testing and inspection.

**Column 4- Total Construction Cost:** The sum of the base construction cost, contingency, and soft costs.





# Option B, Estimate

<b><i>Final Conceptual Cost Estimate,</i></b>			
<b>Option B - EDPM Roof /Trussed Roof, Renovation and Expansion and Standard Truck Bay</b>			
285 Mix Street			Draft/Progress Print
Bristol, CT			
1	2	3	4
<i>Categories of Work</i>	<i>Construction Cost</i>	<i>Contingency &amp; Soft Costs</i>	<i>Total Construction Cost</i>
EDPM Roof and Tapered Insulation (3008 sf)X\$21	\$63,168	\$18,950	\$82,118
Trussed Roof Without Storage (564 sf ) \$48	\$27,072	\$8,122	\$35,194
Roof and Site Drainage (Allowance)	\$10,000	\$3,000	\$13,000
Clean, Repoint and Repair Exterior (2586 sf) \$4	\$11,424	\$3,427	\$14,851
Window/ Door Replacement (202sf) \$30	\$6,060	\$1,818	\$7,878
Over Head Door Replacement (2) Allowance	\$20,000	\$6,000	\$26,000
Mech. Ren.,Gas line Gen. Upgrades (Allowance)	\$12,000	\$3,600	\$15,600
Program Renovation: (1400 sf) \$150	\$225,000	\$67,500	\$292,500
New Construction (640 sf) \$250	\$160,000	\$48,000	\$208,000
Furniture Fixtures and Equipment (Allowance)	\$8,000	\$2,400	\$10,400
Site Improvements,Drive/Parking, (Allowance)	\$15,000	\$4,500	\$19,500
Technology/Phone Security Upgrade (Allowance)	\$7,000	\$2,100	\$9,100
Exterior Signage (Allowance)	\$10,000	\$3,000	\$13,000
Subtotal	\$574,724	\$172,417	\$747,141
Escalation (0 Years)			0
Total			747,141

## Cost Estimate Notes

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**Column 4- Total Construction Cost:** The sum of the base construction cost, contingency, and soft costs.





# Option C, Estimate

## Final Conceptual Cost Estimate,

### Option C - EDPM Roof /Trussed Roof, Renovation and Expansion and Standard Truck Bay

285 Mix Street

Draft/Progress Print

Bristol, CT

1	2	3	4
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Over Head Door Replacement (2) Allowance	\$20,000	\$6,000	\$26,000
Mech. Ren.,Gas line Gen. Upgrades (Allowance)	\$12,000	\$3,600	\$15,600
Program Renovation: (1400 sf) \$150	\$210,000	\$63,000	\$273,000
New Construction (640 sf) \$250	\$270,000	\$81,000	\$351,000
Furniture Fixtures and Equipment (Allowance)	\$8,000	\$2,400	\$10,400
Site Improvements,Drive/Parking, (Allowance)	\$15,000	\$4,500	\$19,500
Technology/Phone Security Upgrade (Allowance)	\$7,000	\$2,100	\$9,100
Exterior Signage (Allowance)	\$10,000	\$3,000	\$13,000
Subtotal	\$669,724	\$200,917	\$870,641
Escalation (0 Years)			0
<b>Total</b>			<b>870,641</b>

#### Cost Estimate Notes

**Column 1 - Categories of Work:** the principal categories of work. New Construction refers to new additions. Program renovations refer to reconfiguration of existing space for new uses.

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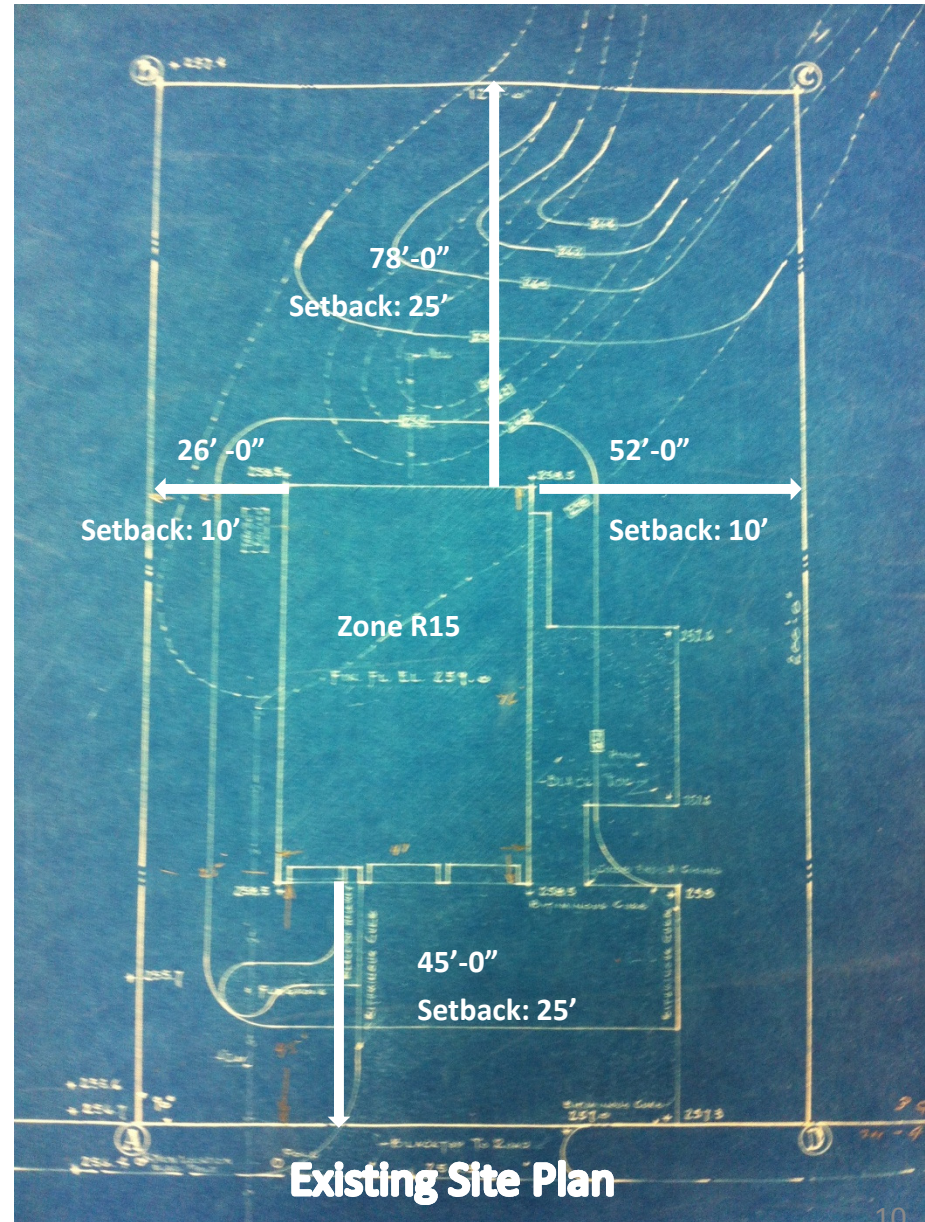
# P and Z Regulations



\* 30%= 7500 sf, Current = 3572 sf

Single-Family		
	R-25	R-15
0	25,000	15,000
0	125	(125) 100
0	40	(45) 25
0	15	(26) (50) 10
0	40	(70) 25
5	35	35
0	25	* 30

**Zoning District Regulations**

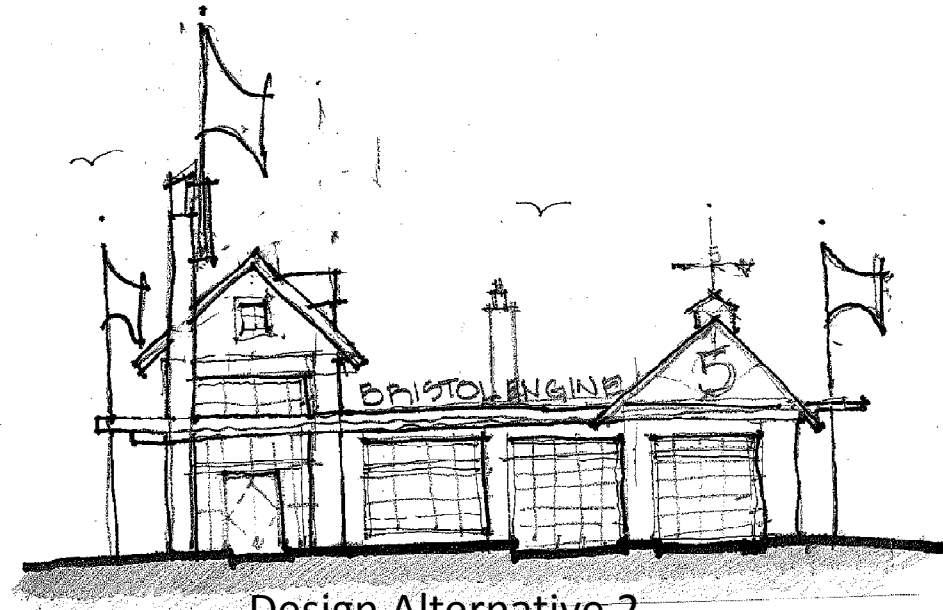




# Design Alternatives



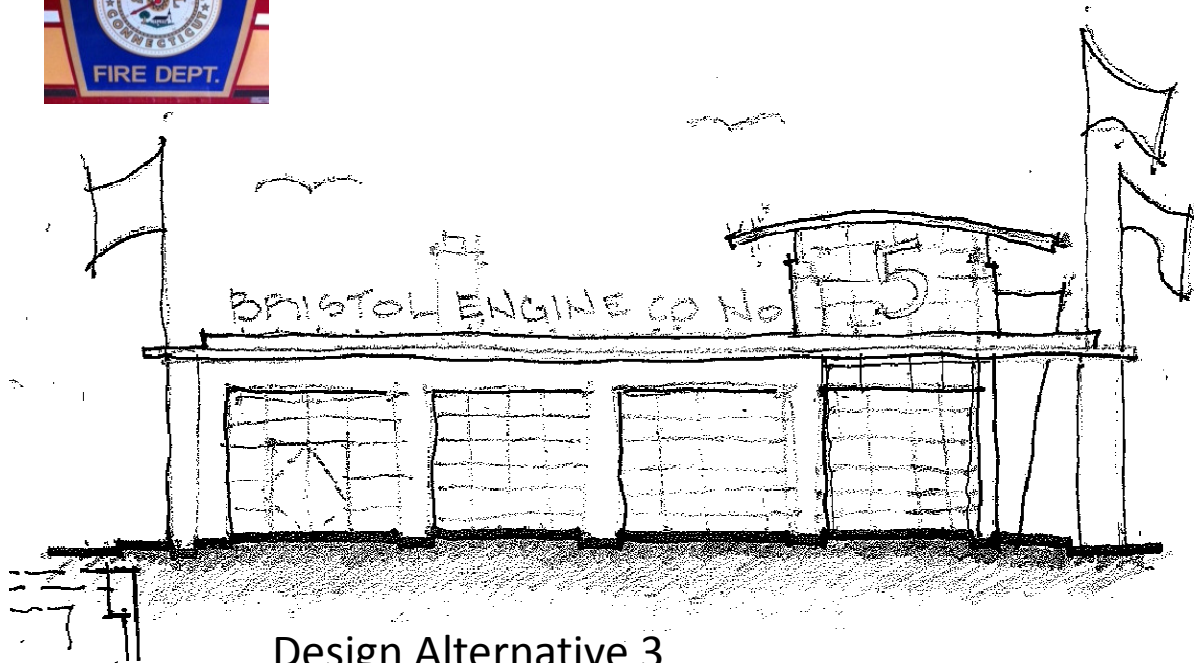
Design Alternative 1



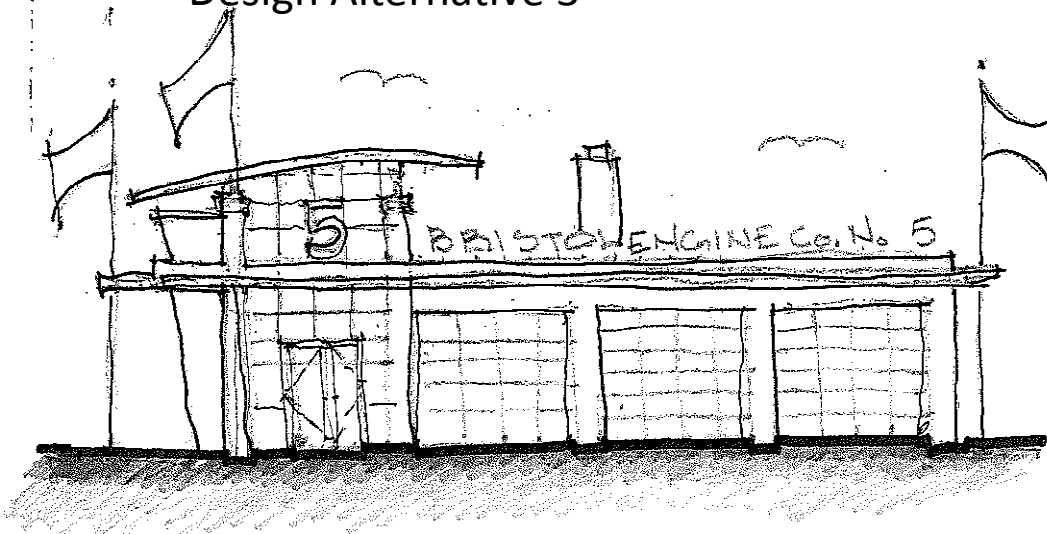
Design Alternative 2



# Design Alternatives



Design Alternative 3



Design Alternative 4